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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,397	09/27/2001	Toshiya Takahashi	212643US2RD	9041

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EXAMINER

THOMPSON, JAMES A

ART UNIT PAPER NUMBER

2625

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/963,397

Applicant(s)

TAKAHASHI ET AL.

Examiner

James A. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2006 and 10 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9,12-17,20-25 and 28-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-9,12-17,20-25 and 28-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 February 2006 has been entered.

Response to Arguments

2. Applicant's arguments filed 10 February 2006 have been fully considered but they are not persuasive. Applicant's arguments were fully addressed in the Advisory Action mailed 03 March 2006. For convenience, the arguments are repeated below.

Applicant argues that it would not have been an obvious engineering design choice to use the specifically recited transmission sequence of claim 3, which depends from claim 1 and that the transmission sequence solves certain problems described in the specification.

Examiner replies that the transmission sequence of claim 3 is still an obvious engineering design choice, as demonstrated from the fact that, in Steele (US Patent 5,884,056), non-scene-changing still pictures are selected in the interval between scene-changing still pictures (column 9, lines 39-45 of Steele). This process can be iterated repeatedly to narrow down the interval (column 9, lines 57-59 of Steele). A natural place for one to select a non-scene-changing picture would be between the

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two scene-changing still pictures corresponding the largest time interval since such a selection would better narrow down the video, giving fuller information to the user.

Applicant argues that the references only teach transmitting scene-changing and non-scene-changing still pictures in two transmission, not one.

Examiner replies that Applicant is attempting a piecemeal analysis of the reference by simply focusing on Steele. The rejection of claim 1 is based on Steele and Hori (EP 1 024 444 A2). The transmission sequence is taught *by combination*, and not by a single reference, as clearly set forth on page 5 of the previous office action, dated 02 November 2005 and mailed 10 November 2005. Hori teaches that non-scene-changing still pictures are sent *along with* the scene-changing still pictures, as set forth on page 5, lines 1-9 of said previous office action. While it is true that Steele alone teaches that the non-scene-changing still pictures are sent in a second transmission, *by combination* with Hori, Steele and Hori teach sending the scene-changing and non-scene changing still pictures in a single transmission. In Steele, a second transmission is required since the process of sending non-scene-changing still pictures is performed based on a user selection. However, Hori teaches that acquiring and sending the non-scene-changing still pictures along with the scene-changing still pictures is automated and sent as a single transmission. Thus, the *combination* of Hori and Steele fully teaches claim 1.

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Note Regarding Claims

3. An Examiner's Amendment, authorized by Applicant's representative, was entered in the Advisory action mailed 03 March 2006. The prior art rejections set forth below incorporate the Examiner's Amendment into the presently recited claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4-9, 12-17, 20-25 and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steele (US Patent 5,884,056) in view of Hori (EP 1 024 444 A2) and obvious engineering design choice.

Regarding claims 1, 9, 17 and 25: Steele discloses an apparatus (figure 2 of Steele) comprising a transmission request receiving unit configured to receive a transmission request for a plurality of still pictures (figure 4(24) and column 6, lines 13-15 of Steele) including scene-changing still pictures (figure 5(42); figure 7(52); and column 6, lines 31-35 of Steele); a transmission sequence determining unit configured to determine a transmission sequence for the plurality of still pictures which is different than the sequence of the still pictures in the picture stream (figure 4(26-30) and column 6, lines 14-21 of

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Steele); a transmission unit configured to transmit the still pictures in one series according to the transmission sequence determined by the determining unit (figure 4(32) and column 6, lines 21-25 of Steele); and a still picture control unit (figure 2(12) of Steele) coupled to and configured to control the receiving unit, the determining unit, and the transmission unit (column 5, lines 22-28 of Steele). The transmission request unit, transmission sequence determining unit, and the transmission unit are portions of physically embodied software controlled by a CPU which reside on the computers requesting and providing said plurality of still pictures from said picture stream (video) (column 5, lines 10-21 of Steele). The computers are coupled together and controlled by the physically embodied software on a central server (figure 2(12) and column 5, lines 22-28 of Steele).

Steele further discloses that said determining unit transmits the scene-changing still pictures (figure 5(42); column 6, lines 31-35; and column 8, lines 48-52 of Steele) since the scene-changing still pictures are the important key markers to present to the user to get an understanding of the corresponding video segment (column 8, lines 48-55 of Steele). Scene-changing still pictures are thus transmitted as the primary pictures to be transmitted for the user to view regarding the corresponding video (column 8, lines 48-55 of Steele).

Steele does not disclose expressly that the still pictures also contain non-scene-changing still pictures; and that the determining unit determines the transmission sequence be such (a) that the scene-changing still pictures are transmitted prior to the non-scene-changing still pictures and (b) that one of the

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non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted.

Hori discloses a collection of thumbnail still pictures taken from video data (figure 2 and column 8, lines 9-11 of Hori) which includes scene-changing still pictures (column 11, lines 8-13 of Hori) and non-scene-changing ("arbitrary time intervals") still pictures (column 8, lines 9-12 of Hori). In Hori, the scene-changing still pictures are also considered more important than the non-scene-changing still pictures since the scene-changing still pictures are created without decimation (column 11, lines 8-13 of Hori).

Steele and Hori are combinable because they are from the same field of endeavor, namely digital still picture sampling and presentation of video data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include non-scene-changing still pictures, as taught by Hori, in the transmitted picture stream taught by Steele. Since the scene-changing still pictures are clearly more important, as taught by both Steele and Hori, one of ordinary skill in the art at the time of the invention would obviously transmit the scene-changing still pictures before the non-scene-changing still pictures. The motivation for doing so would have been to provide the user with additional data regarding a particular scene or scenes within the video the user is considering downloading, thus allowing the user to better determine if the video is worth ordering for download. Therefore, it would have been obvious to combine Hori with Steele.

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Steele in view of Hori does not disclose expressly that the determining unit determines the transmission sequence such (b) that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted.

At the time of the invention, it would have been an obvious engineering design choice for one of ordinary skill in the art to have the determining unit taught by Steele determine the transmission sequence such that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted. Firstly, Applicant has not disclosed that specifically transmitting one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream as the first still picture transmitted after the scene-changing still pictures are transmitted provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with transmitting one of the non-scene-changing still pictures positioned in a different interval than the largest interval between scene-changing still pictures because the user may just as easily select a different interval to view in more detail.

Furthermore, in Steele, non-scene-changing still pictures are selected in the interval between scene-changing still pictures (column 9, lines 39-45 of Steele). This process can be iterated repeatedly to narrow down the interval (column 9, lines

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57-59 of Steele). A natural place for a user to select a non-scene-changing picture would be between the two scene-changing still pictures corresponding the largest time interval since such a selection would better narrow down the video, giving fuller information to the user.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Steele in view of Hori in the manner set forth above to obtain the invention as specified in claims 1, 9, 17 and 25.

Further regarding claim 9: The units which comprise the apparatus of claim 1 provide the corresponding means which comprise the apparatus of claim 9.

Further regarding claim 17: The apparatus of claim 1 performs the method of claim 17.

Further regarding claim 25: As discussed above, the units of claim 1 are embodied as software and are thus the corresponding computer code which comprise the computer-readable medium of claim 25.

Regarding claims 4, 12, 20 and 28: Steele discloses a memory unit coupled to the control unit and the transmission unit (column 4, line 64 to column 5, line 2 of Steele), and configured to store the still pictures as a transmission stream in the sequence determined by the determining unit (column 6, lines 16-22 of Steele). In order to produce a transmission stream of the still pictures (column 6, lines 16-22 of Steele) and transmit said stream over a server-controlled network (column 4, line 64 to column 5, line 2 of Steele), a memory unit on the client computer (figure 2(10) of Steele) which stores the transmission stream for transmission is inherent.

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Regarding claims 5, 13, 21 and 29: Steele discloses a picture stream input unit coupled to the still picture control unit (column 5, lines 22-27 of Steele) and configured to input the picture stream (column 6, lines 6-8 of Steele); and a thumbnail picture extracting unit coupled to the still picture control unit and the still picture input unit (column 5, lines 22-27 of Steele), and configured to extract the plurality of the still pictures from the picture stream input to the still picture input unit (column 6, lines 13-18 of Steele). In order to display the picture stream (column 6, lines 13-18 of Steele), extraction of the plurality of the still pictures from the picture stream is inherent. Otherwise, there is nothing to display.

Regarding claims 6, 14, 22 and 30: Steele discloses a picture stream control unit coupled to the picture stream input unit and the still picture control unit (column 5, lines 22-27 of Steele), and configured to transmit the transmission request received by the receiving unit to an external apparatus (column 6, lines 12-17 of Steele), and configured to control the picture stream input unit so as to input the picture stream (column 6, lines 13-18 of Steele).

Regarding claims 7, 15, 23 and 31: Steele discloses a first memory unit coupled to the still picture control unit and the input unit (column 5, lines 22-27 of Steele) and configured to store the input plurality of still pictures (figure 7 and column 8, lines 14-18 of Steele); and a second memory unit coupled to control unit (column 5, lines 22-27 of Steele) and configured to store the plurality of still pictures as a transmission stream in the sequence determined by the determining unit (column 6, lines 21-25 of Steele). In order to

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display the input plurality of still pictures (figure 7 of column 8, lines 14-18 of Steele), a memory unit on the user's computer is inherent. Further, in order to transmit the transmission stream of the plurality of still pictures (column 6, lines 21-25 of Steele), a memory unit on the serving computer is inherent. Otherwise, there is no means with which to contain the digital data of the transmission stream on the sending and receiving end, both of which are necessary in a networked computer system (column 5, lines 22-27 of Steele).

Regarding claims 8, 16, 24 and 32: Steele discloses that the control unit creates a table (figure 7(52) and column 8, lines 18-23 of Steele) including an offset value of a leading position of each still picture and its corresponding relative location (figure 7(56) and column 8, lines 31-37 of Steele) in the picture stream (column 6, lines 17-21 and column 8, lines 33-34 of Steele), and wherein the transmission unit transmits the table and the sequenced still pictures (figure 7 and column 8, lines 10-16 of Steele).

Steele does not disclose expressly that the frame number, instead of the relative location, is included in the table; and that the transmission unit transmits the table prior to transmitting the sequenced still pictures.

Hori discloses storing the specific frame number of a still picture taken from a video stream (column 8, lines 9-15 of Hori); and placing the information regarding the thumbnails before the thumbnail data itself, or a pointer to said thumbnail data, in the thumbnail information (figure 3 and column 8, lines 3-8 of Hori). Thus, the information about the thumbnails is transmitted before the thumbnails themselves.

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Steele and Hori are combinable because they are from the same field of endeavor, namely digital still picture sampling and presentation of video data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically store the frame number of the still picture, as taught by Hori, as part of the table taught by Steele. The motivation for doing so would have been to be able to specify precisely the time position of the still frame being viewed. Specifying the frame number, as taught by Hori, is more accurate than using a sliding marker that shows a relative location, as taught by Steele, and would thus be more desirable. Further, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to transmit meta-data regarding the still pictures before the still pictures themselves, as taught by Hori, said meta-data being the table taught by Steele. Thus, the transmission unit would transmit the table prior to transmitting the sequenced still pictures. The motivation for doing so would have been to have the meta-data available, such as image format, image size, and relative temporal position within the picture stream (figure 3 of Hori), thus giving the receiving system the information needed to properly render the still picture data for the user. Therefore, it would have been obvious to combine Hori with Steele to obtain the invention as specified in claims 8, 16, 24 and 32.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James A. Thompson
Examiner
Technology Division 2625


24 May 2006



THOMAS LEE
PRIMARY EXAMINER